

# NORM Science Outreach Program (NSOP): Science-based Information Regarding the Potential Environmental Exposures Associated with Radionuclides in Cuttings and Water Produced by Hydraulic Fracturing

## Purpose

The work of NORM Science Outreach Project (NSOP) will focus on the scientific and educational aspects of issues related to the presence of naturally occurring radioactive material — commonly known as NORM — in the drilling and hydraulic fracturing waste streams.

This grant will gather knowledge to be shared with Extension educators and with citizens of Ohio. This will add to the view of Extension as the “honest broker” of information regarding shale development in Ohio. This project will provide improved and expanded science-based information on NORM from the drilling and hydraulic fracturing processes to the public by completing four tasks.

Task completion will enable OSUE educators to better explain the science and issues to the public as well as address concerns.

## Impact

Through OSUE, this project will provide scientifically-accurate information available to disseminate

### Ohio State Colleges/Units Involved

College of Arts and Sciences  
College of Engineering  
College of Food, Agricultural, and Environmental Sciences  
College of Public Health

### Community Partners Involved

Community groups accessed through OSUE

to communities and landowners about waste products from the drilling and hydraulic fracturing processes. Educational Material Development and Dissemination: Applicable learning objectives and corresponding Web-accessible materials will be developed based on our summary and objective interpretation of the data already published, and data generated by OSU, that will enable OSUE educators to explain the science and issues to the public.

Perform research on levels of radioactivity found in drill cuttings and flowback water from wells in Utica and Point Pleasant.



## Contact

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